

MISR Ancillary Climatology Product Quality Statement December 1, 2003

This statement applies to the MISR Ancillary Climatology Product (ACP), versions F03_0004 and F04_0005 of the Aerosol Physical and Optical Properties (APOP) file, and versions F03_0006 and F04_0007 of the Aerosol Mixture file. Quality statements covering earlier time periods may be accessed through <u>links</u> at the bottom of this page.

The quality of the ACP component aerosol particle data is dependent upon the quality of the ACP input data, which encompass aerosol particles described in the literature while taking into account MISR-specific sensitivity studies. The list has been updated to include smaller component particles. In addition to component particle data, mixtures of commonly-occurring aerosol component particles are reported in the ACP. The list of aerosol mixtures has been updated. The mixture list is expected to improve in quality as experience with the data is gained. Aerosol particle size and shape fractional amounts have been added to APOP product version F04_0005 and to Mixture product version F04_0007. Note that the ACP product consists of three parts: the Aerosol Physical and Optical Properties (APOP) file, the Aerosol Mixture file, and the Aerosol Clim-Likely file.

The list below highlights major known problems or limitations in the product.

AEROSOL PHYSICAL AND OPTICAL PROPERTIES (a.k.a. APOP, MIANACP)

LIMITED SET OF AEROSOL COMPONENT PARTICLE DUST MODELS

The aerosol component particles include a red dust model. In the future, a yellow dust model is expected to be added to the list.

DEPRECATED FIELDS RELATED TO PARTICLE HYDRATION STATE

The aerosol component particles are no longer reported in states of hydration. Therefore, the following fields no longer contain useful information, and should be ignored: vdata field 'Relative humidity' in 'Summary Table' vdata; vdata fields 'Relative humidity', 'Hygroscopic', and 'Water activity model' in 'Input Component Particle Types' vdata; vdata fields 'Reference relative humidity model number', 'Water activity model', 'Hygroscopic', and 'Relative humidity' in 'Data Table' vdata; vdata field 'Relative humidity' in 'Hydrated Relative Humidities' vdata; and file global attributes 'Number of hydrated relative humidities', 'Number of water activity models', 'Reference relative humidity'.

AEROSOL MIXTURE FILE (a.k.a. MIANACP)

DEPRECATED FIELDS RELATED TO PARTICLE HYDRATION STATE

The aerosol component particles are no longer reported in states of hydration. Therefore, the following fields no longer contain useful information, and should be ignored: vdata field 'Relative humidity' in 'Mixture Data' vdata; and file global attribute 'Reference relative humidity'.

AEROSOL CLIM-LIKELY FILE (a.k.a. MIANACP)

AEROSOL CLIM-LIKELY INFORMATION NOT YET AVAILABLE

Information regarding the climatological-likelihood of the occurrence of various aerosol types around the globe is not presently included in the Ancillary Climatological Product (ACP).

Also see the

- Statement dated April 15, 2002 for the MISR Ancillary Climatology Product used between April 15, 2002 and November 30, 2003
- Statement dated February 16, 2001 for the MISR Ancillary Climatology Product used between February 16, 2001 and April 14, 2002